

# DIPTERA FROM NEPAL

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## NEW SPECIES OF *PLATYPEZA* AND *CALLOMYIA* (Family PLATYPEZIDAE)

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### SYNOPSIS

Two new species of Platypezidae, *Platypeza nepalensis* and *Callomyia coei*, are described from the material collected by Mr. R. L. Coe in East Nepal.

THE collection of Diptera made by Mr. R. L. Coe on the British Museum (Natural History) Expedition to East Nepal, 1961-62 contained two examples of the family Platypezidae. Both represented undescribed species, one in the genus *Platypeza* and the other in *Callomyia*. I am grateful to Mr. J. P. Doncaster, Keeper of Entomology, and to Mr. Coe for the opportunity to study these specimens.

### *Platypeza nepalensis* sp. n.

♀. *General Appearance*: Head grey with brick coloured eyes, thorax and abdomen bluish grey marked with black; wings clear; legs yellowish brown.

*Head*: Face and front bluish grey; proboscis and palpi yellowish brown; occiput bluish grey; bristles black except those on the proboscis which are yellowish; antennae brown; antennal segments short, the first two subequal, the third a little shorter than the first and second together; first antennal segment as long as broad; second segment a little shorter than broad; third segment gently rounded at tip where arista is attached; arista about twice the width of the three basal antennal segments taken together; two minute rounded segments evident at base of arista; first antennal segment without evident bristles, second segment with a ring of subequal bristles extending beyond the distal margin of the segment, third segment with short fine hair, and arista bare. Eyes brick coloured, widely separated, all facets of uniform size; ocelli amber coloured; ocellar tubercle bluish grey. Chief cephalic bristles: 5 pairs of subequal ocellar bristles, slightly divergent and directed forward; frons with about 15 minute bristles on each side; no verticals; 2 postverticals on left side, one on right; postverticals subequal to and adjacent to the long row of postorbitals on each side behind the eyes; postverticals and postorbitals about twice the length of the ocellars; numerous small occipital bristles below the postverticals and the postorbitals.

*Thorax* bluish grey, with posteriorly directed, black, tridentate marking on its dorsal surface. The base of this marking originates from a pair of black vittae in the neck region and which are in line with the posterior ocelli; it widens out in front of the transverse suture, contracts, and widens again behind the suture to form the tridentate portion. The middle prong of the marking is wider and longer than the lateral prongs, reaching all the way to the scutellum and beyond, whereas the lateral prongs fall short of the scutellum. As it enters the scutellum, the middle prong widens out abruptly to become arrowhead-shaped and penetrates the scutellum for half its length. The two anteriorly directed grey processes which separate the three black ones are relatively short and fail by more than half their length to reach the transverse suture. All

thoracic bristles black ; no acrostichals ; some 45 small pluriserial dorsocentrals on each side ; the posteriormost of these stouter and longer and the last bristle on each side very much stouter and longer ; the dorsocentrals on each side fan out in front to join about 9 posthumeral, all subequal to the dorsocentrals ; on each side there are 5 subequal humerals, 4 prominent notopleurals, and 4 postalars, with the middle two of the last prominent ; scutellum bare except for 4 prominent, convergent, marginal scutellars on each side.

*Wings* hyaline ; anal cell very long, about one-third its length removed from the wing margin ; posterior cross-vein about one-half its length removed from the wing margin ; fourth longitudinal vein branching nearer the wing margin than to the posterior posterior cross-vein ; posterior branch of the fourth vein clearly short of the wing margin. Halteres brownish.

*Legs* blackish brown ; posterior tarsi greatly flattened and with a prominent sole on the third and fourth tarsal segments which are the longest ; a prominent yellow bristle projects from the distal margin of segment 1 and of segment 2.

*Abdomen* yellowish grey below ; above bluish grey except for black markings as follows : segment 1 all bluish grey except for a longitudinal, black, dividing strip down the middle ; segment 2 all black ; segment 3 with a narrow black band along the anterior margin, widening in the middle fifth and behind to reach the posterior margin of the segment ; segment 4 with a narrow black band along the anterior margin and a thin edging of black along its posterior margin ; segment 5 similar to 4 but with the black band in front more prominent ; segment 6 all black except for a thin bluish grey margin behind.

Length : Body, 3 mm.

Holotype ♀. E. NEPAL : Taplejung District, Sangu, about 6,200 ft, mixed vegetation by stream in gully, xi. 1961-i. 1962 (*R. L. Coe*).

*Platypeza nepalensis* is closely allied to the Nearctic *P. polypori* Willard, 1914, and the Palearctic *P. infumata* Haliday, 1838. The three species are distinguishable on the basis of their black thoracic and abdominal markings. For example, in *P. nepalensis* abdominal segment 1 is all bluish grey except for a prominent black dividing stripe down the middle, in *P. infumata* it is all bluish grey except for a wide black area in front and a thin black band along the posterior margin of the segment, and in *P. polypori* this segment is all bluish grey except for a thin black band along its posterior margin. Also useful for a quick separation of these three species are the differences pertaining to the middle and widest prong of the posteriorly directed tridentate black marking on the thorax. In *P. nepalensis* this middle prong not only reaches the scutellum, but extends well into it to form the arrowhead-shaped process described above ; in *P. polypori* this process about reaches the scutellum but does not extend into it ; in *P. infumata* the process ends far short of the scutellum.

### *Callomyia coei* sp. n.

♀. *General Appearance* : Head grey ; thorax black and grey ; abdomen banded with orange and black ; wings clear ; legs yellowish.

*Head* : Face and front silvery grey ; proboscis and palpi orange-yellow ; occiput black, heavily mottled with grey ; all bristles black except those on the proboscis which are yellowish brown. All segments of antennae brownish black ; first two segments short, as broad as long, subequal in length but first segment thinner ; first segment with a single dorsal bristle ; second segment with a ring of several prominent bristles ; third segment somewhat flattened, about as long as the first two combined, pointed at the apex, covered with short fine hair ; arista black, bare, terminal, its base consisting of two tiny bead-like segments. Eyes brick coloured, mottled

with black, widely separated, all facets of uniform size ; ocelli amber coloured ; ocellar tubercle black. Chief cephalic bristles : one pair of prominent and divergent greater ocellars arising at the level of the anterior margin of the lateral ocelli ; a single pair of divergent lesser ocellars about one-fourth the length of the greater ocellars and arising at the level of the posterior margin of the lateral ocelli ; one pair of prominent divergent vertical bristles about equal in size to the greater ocellars, located at about the level of the lateral ocelli ; one pair of occipitocentrals, convergent, a little shorter than the verticals, located very slightly toward the midline but well behind ; one pair of slightly convergent occipitolaterals behind and lateral to the verticals, and in line with and at the sides of the occipitocentrals, a little shorter than the occipitocentrals ; the first postorbital on each side standing close to its occipitolateral, the postorbitals continuing the row begun by the occipitocentral and occipitolateral of the side, the members of the row not becoming thinner but getting shorter as they continue down the paracephalic regions to the cheek ; in the lower region of the head two or three rows of prominent paracephalics, located behind and more or less parallel to the postorbitals, are continuous below with the beard of the cheeks and the parafacial regions ; one pair of prominent fronto-orbitals, about two-thirds the length of the vertical bristles behind them ; a single pair of minute frontals below and toward the mid-line from the verticals.

*Thorax* silvery grey, with a broad black stripe down the middle to the posterior margin of the scutellum. There is also a black area on each side of the mesonotum just above the wing base. Humeri brownish yellow ; squamae brownish cream, fringed with brown hairs ; all bristles black ; one row of 7 acrostichals set close together and extending down the midline, the row abbreviated somewhat in front and stopping behind about half-way back on the mesonotum ; a row of 13 dorsocentrals on each side, consisting of about 5 presutural and 8 postsutural bristles, the row curving outward in front at the level of the first acrostichal and extending uninterrupted to the humeral callus, and behind extending four bristles posterior to the last acrostichal, the posterior bristles of the row becoming much larger, and with the last one (prescutellar) very large ; 2 humerals in line with outward-turned dorsocentrals, about equal in size ; 2 additional presutural bristles, the posterior one much larger ; 3 postsutural bristles above the wings, becoming progressively longer from front to back ; 5 notopleurals, arranged 3 below toward the front and 2 above toward the back ; scutellum bare except for 2 pairs of prominent, convergent, marginal scutellars.

*Wings* clear ; with brownish veins ; no stigmata ; 12 spines on  $R_1$  ; halteres brown.

*Legs* slender ; yellowish brown, with tarsi darker ; posterior tibiae and tarsi not much dilated.

*Abdomen* with segments 1, 2, and 4 silvery orange both above and below, and the fourth with a thin, brown, mid-dorsal, longitudinal stripe ; segment 3 black above and yellow below ; segment 5 black both above and below ; remaining segments yellowish ; dorsum and sides of abdomen clothed with slender black hairs which become distinct bristles on the terminal segments.

Length : Body, 3 mm.

Holotype ♀. E. NEPAL : Taplejung District, old mixed forest, above Sangu, about 6,200 ft, 25-28. x. 1961 (R. L. Coe).

*Callomyia coei* is most likely to be confused with the Palearctic *C. amoena* Meigen, 1824, and the Nearctic *C. clara* Kessel, 1948. From the former it is quickly distinguishable by its black third abdominal segment, this being principally orange in that species. *Callomyia clara* also has orange on this third abdominal segment to set it apart. Moreover the all orange fourth abdominal segment of *C. coei* is replaced in *C. clara* by one which is marked by a black triangle lying over the orange. Also, the orange in *C. coei* is pale in contrast to the bright orange of *C. clara*.